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§ 111. **Sudden appearance of plants.**—A few days since, while botanizing on the shores of the Delaware River below Philadelphia, I found a tract of meadow land, several acres in extent, which had been filled in with mud dredged from the river, and growing on it a great variety of plants, such as are usually found along river shores, *Polygonums*, *Chenopodiums*, *Amarantus*, *Atriplex*, *Acnida*, &c., &c., many of which had attained an unusual size. A species of *Acnida* was observed which measured $6\frac{1}{2}$ inches in circumference at the base. *Polygonum orientale* was growing in great abundance, more plants I think than I had ever seen before, during 15 years botanizing. Some of them were more than 10 feet in height, and branching in all directions, the main stem from 4 to 6 inches in circumference, many of the leaves would measure 10 to 12 inches in length. Growing with *Polygonum orientale* was *Cleome pungens*, a West Indian plant, though occasionally met with in gardens. Charles F. Parker had previously called my attention to these two plants growing together on the river dredgings, he having found them both in great abundance two years ago. It is difficult to account for the presence of the *Cleome* here, except that the seeds must have been in the mud when dredged up, as there was no probability of its having been planted, and there are no gardens anywhere in the neighborhood from which it might have escaped. There are several large sugar refineries on the river above the place, and it has been suggested that seeds may have been introduced in the importations from the West Indies, and with other waste material washed into the river, in turn to be brought up as above. It does not seem likely to maintain itself in the locality, as I found but a limited quantity. Mr. Parker says, when he first observed it there was an abundance of specimens. Has anybody observed the growth on river-dredgings elsewhere?

ISAAC C. MARTINDALE.

CAMDEN, N. J., August 8, 1876.

§ 112. ***Opuntia vulgaris* a New Jersey plant.**—In June last I collected near Haddenfield, N. J., an *Opuntia* in full flower, which, on comparing with the figures of *O. vulgaris* and *O. Rafinesquii* in volume 4 of the Pacific Railroad reports, I was satisfied was *O. vulgaris*; after the fruit became fully developed, I again examined it with the same conclusions. As there had been so much controversy about the *Opuntia* of New Jersey, some claiming that the *O. vulgaris* did not occur in the State, but that all was *O. Rafinesquii*; I forwarded a fresh specimen to Dr. George Engelmann at St. Louis, and have his reply now before me, dated August 7th, in which he says: "It is *Opuntia vulgaris*, which I had not seen north of the Falls of the Potomac. The specimen shows clearly the color, bristles, fruit, and leaves of that species; there is no doubt about it. I have in cultivation here (St. Louis) the Eastern mostly spineless *O. Rafinesquii*, from Massachusetts, New York, Pennsylvania and New Jersey; the *O. vulgaris* I have only from Falls of the Potomac, and from South Carolina." He adds: "Is your plant a real native?" On that point there can be no doubt. John Gill, who owns the land

on which it grows, says it has been there to his knowledge at least 25 years; it is confined to a space not more than an acre in extent, and while it does not incline to spread much, it shows no signs of disappearing.

The *O. vulgaris* may be distinguished from the *O. Rafinesquii* by its paler joints, fewer petals, and the minute leaves being shorter, more ovate and appressed. Having now fully identified *Opuntia vulgaris* as a New Jersey plant, it would be interesting to know whether it may not be found in other localities than the one above mentioned.

ISAAC C. MARTINDALE.

CAMDEN, N. J., August 12, 1876.

§ 113. *Tilia Americana*, L.—I recently came across a tree of this species in Weymouth, Mass., the leaves of which instead of being acuminate are rounded or even a little notched at the extremity. Has such a form been before observed?

H. WILLEY.

§ 114. *Dimorphism*.—I have noticed a decided dimorphism in the flowers of *Bouvardia leiantha*. One form has the stigmas quite exerted and the limb rather narrow; in the other form the limb is broader and the stigmas included. Of course there is a corresponding difference in the position of the stamens. As dimorphism is very characteristic of the Rubiacene I dare say that this observation has been made by other students, only I have never happened to see it.

W. W. BAILEY.

§ 115. *South Jersey Fungi*.—Descriptions of some new species found at Newfield, New Jersey, by J. B. ELLIS.

(Continued from Vol. VI., No. 14.)

17. *Helicosporium auratum*, *n. sp.*—On decaying wood of *Acer rubrum* lying on the ground, October, 1875. Flocci erect, sparingly branched, clavate above, spores with 12–15 convolutions closely coiled into oblong-elliptical masses about .0015' in length. Color of the whole plant golden yellow. Very minute, appearing to the naked eye like a sprinkling of yellow dust. Structure of the spores the same as in *H. ellipticum*, *Pk.* Found but once and very sparingly, but apparently quite distinct.

18. *Sphæronema hispidulum*, *n. sp.*—On dead branches of *Nyssa multiflora*, October. Perithecia scattered, linear-clavate, acute, black, under the lens minutely hispid-pubescent, about $\frac{1}{30}$ ' high. Spores linear-lanceolate, curved, 8–10 septate, of a pale yellowish tint except the acute hyaline extremities, .0025' \times .0002'. Globule of spores whitish, base of the perithecia somewhat enlarged and clothed with longer softer hairs.

19. *Sphæronema hystricinum*, *n. sp.*—On dead *Viburnum*, mature in June. Perithecia about one line high, cylindric-subulate, acute, transversely rugose, nearly black but with a faint rufous tinge especially when moist. Spores hyaline, arcuate, narrow, acute, 3–4 nucleate, .001' long, or with the pedicel, which often remains attached to one end, .0015'. Terminal globule minute, hyaline or with a faint tinge of rose color. The stems and branches on which this fungus occurs are covered so thickly by it as to appear hispid. The tip of the spores is acute but not prolonged as in the preceding species.